

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Revisions to Rules Authorizing the Operation)	
of Low Power Auxiliary Stations in the 698-)	
806 MHz Band)	WT Docket No. 08-166
)	
Public Interest Spectrum Coalition, Petition for)	
Rulemaking Regarding Low Power Auxiliary)	
Stations, Including Wireless Microphones, and)	
the Digital Television Transition)	WT Docket No. 08-167

COMMENTS OF AUDIO-TECHNICA U.S., INC.

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Summary

In this proceeding, the Commission has proposed to amend its rules to prohibit operation of low power auxiliary stations within the 700 MHz Band (698-806 MHz) after the end of the transition to digital television (“DTV”) on February 17, 2009; prohibit the manufacture, import, sale, offer for sale, or shipment of devices that operate as low power auxiliary stations in the 700 MHz Band; and modify existing authorizations to operate low power auxiliary stations in spectrum that includes the 700 MHz Band so as not to permit such operations in the 700 MHz Band after February 17, 2009. The Commission has also sought comment on issues raised by the Public Interest Spectrum Coalition (“PISC”) in its informal complaint and petition for rulemaking (“PISC Petition” or “Petition”). The PISC Petition accuses certain manufacturers of wireless microphones authorized for use under Part 74, Subpart H of having violated the Commission’s rules by: marketing and selling equipment limited by Commission rule to certain classes of users to the general public; marketing and selling equipment for purposes that violates the Commission’s rules; and deceiving the public as to the requirement for a Commission license and the limitations imposed by the Commission on the use of the devices.

While A-T supports the general thrust of the *NPRM* and *Order* in so far as the Commission has elected to impose a prospective freeze on granting any new request for equipment authorization of low power auxiliary station devices that would operate in any of the 700 MHz Band frequencies, the Commission should provide a reasonable transition period for existing BAS licensees to cease 700 MHz operations. The availability of suitable spectrum for BAS operations has been substantially diminished by the DTV transition and it will take time to find useable replacement spectrum and obtain appropriate equipment. Any interference concerns are mitigated by the fact that BAS stations operate at far lower power levels than the LPTV and television translator stations that the Commission continues to allow to operate in the 700 MHz Band. BAS licensees should be transitioned out of the 700 MHz Band on the same DTV transition schedule that the Commission ultimately adopts for low power television stations.

A-T supports PISC's call for the creation of a new blanket licensed general microphone wireless service ("GWMS"). The popularity of wireless microphones and their use to enhance cultural, political, educational and religious activities throughout our society is a direct testament to the success of the Commission's wireless policies. A-T also believes that PISC's proposal to reallocate the frequencies from 2020 MHz to 2025 MHz for primary GWMS use should be given careful consideration although additional spectrum beyond this 5 megahertz block will still be required for this service. Even with the additional spectrum, unlicensed white space portable devices that eventually may be authorized to operate on a co-equal basis with GWMS in the TV Bands must not be allowed to operate at power levels greater than those permitted for wireless microphones.

A-T rejects PISC's attempt to lay the blame for unlicensed wireless microphone use at the feet of equipment manufacturers as well as its call for the Commission to impose the cost of relocating unlicensed users out of the 700 MHz Band on wireless microphone manufacturers. Despite PISC's claims otherwise, license eligibility for wireless microphones is quite broad. The Commission's rules impose responsibility on the individual end user, not the manufacturer of the user's equipment, to establish eligibility for and to obtain any required FCC license. It is neither feasible nor legally required for equipment manufacturers to trace the sale of each individual product down the chain of distribution to each individual end user and make a pre-sale determination of that user's eligibility for an FCC license under any one of several potentially applicable FCC rule parts. Any attempt to impose such an obligation retroactively would not only represent poor public policy, but also would be legally unsustainable. PISC's assertions as to the number of unlicensed wireless microphone users is not supported by its own cited source and its complaints against specific manufacturers cannot and should not justify the imposition of an extraordinary and costly general relocation obligation upon an entire industry sector.

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Audio-Technica U.S., Inc. (“A-T”) submits these comments in response to the Commission’s *Notice of Proposed Rulemaking and Order*, released on August 21, 2008, in the above-captioned proceeding.¹ In the *NPRM*, the Commission has proposed, *inter alia*, to amend its rules to prohibit operation of low power auxiliary stations within the 700 MHz Band (698-806 MHz) after the end of the transition to digital television (“DTV”) on February 17, 2009; prohibit the manufacture, import, sale, offer for sale, or shipment of devices that operate as low power auxiliary stations in the 700 MHz Band; and modify existing authorizations to operate low power auxiliary stations in spectrum that includes the 700 MHz Band so as not to permit such operations in the 700 MHz Band after February 17, 2009. The Commission has also sought comment on issues raised by the Public Interest Spectrum Coalition (“PISC”) in its informal

¹ *In the Matter of Revisions to Rules Authorizing the Operation of Low Power Auxiliary Stations in the 698-806 MHz Band; Public Interest Spectrum Coalition, Petition for Rulemaking Regarding Low Power Auxiliary Stations, Including Wireless Microphones, and the Digital Television Transition*, WT Docket Nos. 08-166, 08-167, Notice of Proposed Rulemaking and Order, FCC 08-188 (rel. August 21, 2008) (“*NPRM/Order*”).

complaint and petition for rulemaking (“PISC Petition” or “Petition”). The PISC Petition accuses certain manufacturers² of wireless microphones authorized for use under Part 74, Subpart H of having violated the Commission’s rules by: marketing and selling equipment limited by Commission rule to certain classes of users to the general public; marketing and selling equipment for purposes that violates the Commission’s rules; and deceiving the public as to the requirement for a Commission license and the limitations imposed by the Commission on the use of the devices.

I. INTRODUCTION

A-T has been dedicated to advancing the art and technology of electro-acoustic design and manufacturing since 1962. From a beginning in state-of-the-art phonograph cartridges, A-T has expanded over the years into the design and manufacture of high-performance headphones, microphones, mixers and electronic products for home and professional use. In each new area, the company’s goal has been to create innovative, problem-solving products. The results of these engineering and production efforts can be seen in the effective use of A-T products in a broad spectrum of applications. Audio-Technica microphones, for example, are found in daily use in major broadcast and recording studios, and relied upon by top touring musicians. A-T microphones are chosen for important installations and major events, such as the U.S. House of Representatives, the U.S. Senate, the Super Bowl, World Cup Soccer and the Olympics.

A-T does not market or sell its product line directly to consumers. Rather, its professional products are sold to broadcast supply houses, high end professional

² A-T is *not* one of the manufacturers named in the PISC Petition.

contractor/installers, professional music stores, catalogs and on-line sites and distributors. A-T's wireless microphone products sold through mass market retailers include only products operating on frequencies available for Part 90 eligibles (sometimes referred to as "traveling frequencies").³ All sales to different distribution channels are directed through a network of independent representatives. These representatives, stores, and distributors are not in any way affiliated with, or controlled by A-T, nor do they sell A-T products exclusively. A-T's contact with the end users of its wireless microphone products normally arises in the context of a need for service or a request from an end user for assistance in coordinating frequency plans for 10-15 systems in simultaneous use and for large events such as the Super Bowl, the Grammy's, the Olympics and other prime-time broadcast events where the requirement for simultaneous channels in use at one time in near proximity often exceeds 40 units. While FCC licensing of end user wireless microphones is not within the services or product support that A-T provides, A-T has always responded to any inquiries it received by indicating that FCC licensing of wireless microphones is required.

A-T has also been an active participant in the Commission's pending proceeding to allow unlicensed devices ("UDs") to operate within the television white spaces.⁴ A-T does not oppose

³ Section 90.265(b) of the Commission's rules lists eight frequencies available for wireless microphone use by Part 90 eligibles between 169.445 MHz and 171.905 MHz. Under section 90.35 of the rules, such eligibility extends to: 1) operation of any commercial activity; 2) operation of educational, philanthropic, or ecclesiastical institutions; 3) clergy activities; and 4) operation of hospitals, clinics, or medical associations.

⁴ See e.g., Comments of Audio-Technica U.S., Inc. submitted in ET Docket Nos. 04-186 and 02-380 (filed November 29, 2004); Reply Comments of Audio-Technica U.S., Inc. submitted in ET Docket Nos. 04-186 and 02-380 (filed March 2, 2007).

allowing unlicensed operations on vacant television broadcast spectrum, but has asked the FCC to move forward cautiously and deliberately based on actual field testing in order to ensure that the particular interference vulnerabilities of broadcast low power auxiliary stations (“LPAS”) within the Broadcast Auxiliary Service (“BAS”), including wireless microphones, are taken into account and fully addressed in any decision to allow unlicensed operation in the TV Bands. A-T has also requested the Commission to set aside a number of unoccupied television channels in each market free from unlicensed operation for wireless microphone use given the very real interference potential to wireless microphone services posed by operation of unlicensed devices in the broadcast spectrum. At the same time, A-T has responded to the FCC’s desire to develop technology solutions that will allow unlicensed wireless devices to successfully operate in the “white spaces” without disrupting existing licensed services. To this end, A-T has invested millions of dollars in the research, development, production and launch of the world’s first ultra wide band (“UWB”) digital wireless microphone. A-T undertook this development effort nearly concurrently with the cessation of 700MHz product development in anticipation and support of the FCC’s goals and policies.

II. A REASONABLE TRANSITION FOR EXISTING 700 MHz BAND BAS LICENSEES WOULD NOT POSE AN UNDUE RISK TO LICENSED PUBLIC SAFETY AND COMMERCIAL WIRELESS SERVICES.

A-T supports the general thrust of the *NPRM* and *Order* in so far as the Commission has elected to impose a freeze on granting any new request for equipment authorization of low power auxiliary station devices that would operate in any of the 700 MHz Band frequencies and to hold in abeyance any pending license applications and equipment authorization requests that involve

operation of low power auxiliary devices on frequencies in the 700 MHz Band after the end of the DTV transition. Equipment manufacturers, such as A-T, are cognizant of the Commission's efforts to reclaim the 700 MHz Band from television broadcasters and to re-purpose that spectrum for commercial and public safety use as mandated by Congress. In this regard, like other equipment manufacturers, A-T anticipated that the Commission eventually might transition BAS operations out of the 700 MHz Band. Approximately eight years ago, in anticipation of the DTV transition, A-T ceased development of new 700 MHz products. During the same period, A-T also sought to limit sales of its existing 700 MHz products and to redirect sales to its other product lines by making the 700 MHz products available only for limited distribution to specific high end professional installers to meet the needs of a specific end user. A-T did not mass market these products.

A-T believes that the Commission's proposal to implement a freeze on a going forward basis will have a limited impact on BAS services. Because the industry has largely moved away from the development of new BAS products that operate in the 700 MHz Band, most new BAS operations would likely have occurred outside of the 700 MHz Band in any event. The balance of interests favors the Commission's decision to close the 700 MHz Band to new LPAS products and to new licensees in light of the rapidly approaching DTV transition deadline.

A quite different situation is presented by the Commission's proposal to modify existing BAS licenses and require existing licensed BAS operations in the 700 MHz Band to cease as of February 17, 2009. With respect to existing operations, the balance of interests changes considerably. The Commission's *NPRM* provides no reasoned explanation for its tentative

decision to disrupt the operations of existing BAS licensees by deleting 700 MHz band authority from their existing licenses and prematurely rendering existing LPAS equipment deployed in the field obsolete and useless before the end of its useful life. The Commission's proposal to prematurely end existing BAS operations in the 700 MHz Band is flawed for several reasons and should be modified to allow existing operations to be phased out over a longer period of time and in an orderly fashion.

Initially, as pointed out by A-T and other commenters in the Commission's pending *TV White Spaces* proceeding,⁵ as broadcast stations transition to digital operation, the amount of broadcast spectrum potentially available for BAS operations is reduced from 67 channels to 49 channels. The availability of core channels in a given market is even further reduced by the digital translators, Class A stations and LPTV stations that the Commission continues to authorize to operate in the TV Bands pursuant to its *Digital LPTV Order*.⁶ Thus, the transition to digital television represents a "double whammy" for wireless microphone services. Both the universe of potential available television broadcast channels and the actual availability of those channels for wireless microphone services in any given market have been diminishing and will

⁵ *In the Matter of Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, ET Docket Nos. 04-186, 02-380, First Report and Order and Further Notice of Proposed Rulemaking, 21 FCC Rcd 12266 (2006) ("*TV White Spaces*").

⁶ *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Class A Television Stations*, MB Docket No. 03-185, Report and Order, FCC 04-220 (rel. September 30, 2004) ("*Digital LPTV Order*").

continue to do so for the foreseeable future.⁷ In light of these realities, it is simply unreasonable to expect that BAS services will be able to relocate entirely out of the 700 MHz Band within 6 months from the Commission's release of the *NPRM*. Rather, a reasonable transition period is required to minimize the disruption that such relocation will impose on existing licensees.

The Commission's proposal to require existing users to cease operating in the 700 MHz band with a mere 6 months' notice is based entirely on its unsupported claim that "such operations could cause harmful interference to new public safety and commercial wireless services in the band."⁸ The suggestion that LPAS operations pose any sort of significant threat to new public safety or commercial services is without empirical support and is contrary to the treatment the Commission has afforded to other low power broadcast services that operate in the 700 MHz Band.

Pursuant to its *Digital LPTV Order*, the Commission continues to authorize digital Class A, low power television ("LPTV") and digital translator stations to continue to operate in the TV Bands without a fixed transition deadline. Furthermore, the Commission continues to process applications for new translator and LPTV stations in the 700 MHz Band until it establishes a DTV transition date for these low power stations. In doing so, the Commission has indicated that the statutory DTV Transition date of February 17, 2009 applies only to full power broadcast

⁷ In its *Digital LPTV Order*, the Commission refused to adopt a firm date for the transition of LPTV and translator stations and indicated that, in the future, it would accept applications for new (non-incumbent) low power facilities that will further encumber efforts to find open channels for BAS operations. *Id.* at ¶¶19, 155.

⁸ *NPRM* at ¶¶ 2, 14.

stations and does not apply to low power services. The fact that the Commission has not applied the DTV transition deadline to translator, LPTV and television booster stations is an acknowledgement that such stations operate on a secondary basis and do not pose a significant threat to public safety and commercial wireless services in the 700 MHz Band. If they did, the Commission would not have allowed such stations to operate without a fixed DTV transition deadline.

For the very same reasons, the February 17, 2009 deadline should not apply to low power BAS operations. BAS operations are conducted at power levels that are substantially lower than those authorized for LPTV and translator operations. If television translator stations and LPTV stations can continue to operate in the 700 MHz Band after February 17, 2009 without posing an undue interference risk to public safety and commercial wireless operations, the Commission cannot seriously claim that BAS stations operating at a fraction of those power levels represent a credible interference risk. Nor is there any record to suggest that LPAS operations have caused even a single instance of harmful interference to newly deployed commercial wireless or public safety services. In the absence of any demonstrated incidence of harm, BAS stations should be allowed to transition out of the 700 MHz Band on the same schedule that the Commission ultimately adopts for other low power broadcast services, such as television translator and LPTV stations. This additional time will minimize service disruptions and reduce the cost of BAS transition out of the 700 MHz Band.

Finally, the imposition of a February 17, 2009 transition deadline for existing BAS operations is unnecessary. As indicated above, manufacturers such as A-T have already moved

away from 700 MHz Band product development and deployment. This, in combination with the Commission's proposal in the *NPRM* to prohibit the manufacture and sale of new 700 MHz LPAS equipment will inevitably move existing BAS services out of the 700 MHz as existing equipment is replaced at the end of its normal life cycle. Accordingly, the Commission's ultimate goal to move BAS out of the 700 MHz band can be accomplished without any need to disrupt existing BAS operations and without imposing unnecessary retooling costs on BAS licensees.

At the same time, it must be recognized that commercial wireless and public safety services in the 700 MHz Band will not just magically appear once the clock strikes midnight on February 17, 2009. These new 700 MHz facilities and networks will require a number of years to construct. The phased build-out requirements imposed on Auction 73 licensees, as well as the Commission's decision to extend the expiration date of the 700 MHz licenses awarded in Auction Nos. 44 and 49 reflect this reality.⁹ Indeed, the Commission has not even completed the auction of all 700 MHz spectrum as evidenced by the failure in Auction No. 73 to auction the D Block spectrum that was supposed to serve as the incentive to create a public/private partnership to build and operate an interoperable nationwide broadband public safety network on the D Block frequencies.¹⁰

⁹ *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, Report and Order and Further Notice of Proposed Rulemaking, FCC 07-72, ¶¶ 82-87 (2007).

¹⁰ The Commission has just commenced a proceeding to decide how the D Block Public/Private Partnership should be restructured, the geographic basis for licensing the D Block; technical standards, auction timing, and a myriad of other issues. *In the Matter of Service Rules for the 698-746, 747-762 and 777-792 MHz Bands; Implementing a Nationwide, Broadband,*

While a February 17, 2009 deadline makes sense for the full power broadcast services that prevent deployment of commercial wireless and public safety services in the 700 MHz Band due to their primary status, this is not the case with regard to low power BAS stations that are far less likely to interfere with newly deployed 700 MHz services and would be secondary to such deployments in any event. It makes far more sense to phase out BAS operations on the same schedule as the Commission ultimately adopts for other low power stations such as translators and LPTV stations.

III. THE PISC PETITION UNFAIRLY BLAMES EQUIPMENT MANUFACTURERS FOR THE POPULARITY AND DEPLOYMENT OF UNLICENSED WIRELESS MICROPHONES.

The Commission's *NPRM* also requests comment on issues raised by the PISC Petition. The PISC Petition accuses certain manufacturers of wireless microphones authorized of having violated the Commission's rules by: marketing and selling equipment limited by Commission rule to certain classes of users to the general public; marketing and selling equipment for purposes that violates the Commission's rules; and deceiving the public as to the requirement for a Commission license and the limitations imposed by the Commission on the use of the devices. PISC has also proposed an amnesty for unlicensed wireless microphone users and the creation of a General Wireless Microphone Service ("GWMS") that would be secondary to broadcast licensees and individually licensed microphone systems on the BAS frequencies and authorized to operate on a primary basis in the 2020-2025 MHz band that may become available in the

Interoperable Public Safety Network in the 700 MHz Band, WT Docket No. 06-150, PS Docket No. 06-229, Third Further Notice of Proposed Rulemaking, FCC 08-230 (rel. September 25, 2008). It is unlikely that this proceeding will be completed by February 17, 2009 as initial comments have yet to be filed.

event that the frequency block with which it is paired is reallocated.¹¹ PISC also argues that equipment manufacturers should pay to relocate unlicensed wireless microphone users out of the 700 MHz Band.

Initially, A-T wishes to point out that it is in agreement with many of the elements contained in the PISC Petition. A-T does not oppose PISC's request that the Commission clarify the secondary status of licensed wireless microphone services vis-à-vis new commercial and public safety licensees in the 700 MHz Band or its proposal that the Commission prohibit, on a going forward basis, the manufacture, advertisement and sale of wireless microphone systems operating in the 700 MHz Band.¹²

Similarly, A-T supports in principle PISC's proposal that the Commission set aside a certain amount of spectrum where wireless microphones can operate on a primary basis. Although reallocation of the 2020-2025 MHz band is outside the scope of this proceeding, A-T has asked for the Commission to set aside spectrum for this purpose in comments filed in the *TV White Spaces* proceeding. In those comments, A-T has requested the Commission to set aside at least three unused television channels in each television market where wireless microphones

¹¹ *In re Service Rules for Advanced Wireless Services in 2155-2175*, 23 FCC Rcd 9295 (2008).

¹² In this regard, A-T would point out that the PISC Petition does not require existing licensed wireless microphone operations in the 700 MHz Band to cease on February 17, 2009, only that the marketing, manufacture and sale of new 700 MHz equipment be prohibited as of that date. The PISC Petition indicates that an acceptable alternative to requiring an immediate cessation of existing licensed 700 MHz BAS operations would be for the Commission to clarify the secondary status of licensed wireless microphones in the 700 MHz Band. Petition at pp. 26-27. Accordingly, A-T would assume that PISC would have no reason to object to a reasonable transition period for licensed wireless microphone users to discontinue 700 MHz operations as proposed by A-T in these comments.

could operate on a primary basis, free from potential interference from unlicensed devices. Although the spectrum proposed by PISC is outside of the television band, this spectrum could nonetheless be used for that purpose. A-T wishes to point out, however, that while PISC's proposal is constructive, it represents only a partial solution, as the band consists of only 5 MHz of spectrum which is less than one-third of the amount of spectrum minimally necessary to allow interference free wireless microphone operations in most markets.¹³ In addition to limited available spectrum, moving to this higher frequency band will result in degradation of performance to end users of wireless microphones due to increased body blockage and absorption, and increased sensitivity to multi-path effects. End users may also be inconvenienced or unable to operate wireless devices in this band due to the fact that existing supporting equipment such as external antennas, splitters, combiners, etc. would not function with such a large shift up in frequency.

A-T also supports PISC's call for a general amnesty for unlicensed wireless microphone users and the creation of a GWMS. A-T acknowledges that wireless microphone users do not always apply for and receive FCC licenses for their product. Regardless of whether BAS

¹³ Additionally, the ability of wireless microphones to co-exist with unlicensed devices does not rely only on the Commission's willingness to make wireless microphone operations primary in a limited portion of the spectrum. In portions of the spectrum where UD's will be allowed to operate on a co-primary basis with wireless microphones after the DTV transition, it is absolutely essential that the Commission impose the same power limits on portable UD's as are imposed on wireless microphones. While it is possible to account for UD's operating at a fixed location at higher power levels when designing and implementing a wireless microphone system, it is not possible to do so where higher power UD's are portable in nature. Thus portable UD's will remain an interference problem for licensed BAS operations if they are allowed to operate at power levels exceeding those used by wireless microphone systems.

frequencies or traveling frequencies are being used, FCC rules have required that such operations be licensed. One problem is that the Commission's licensing procedures can be confusing. A-T believes that PISC's proposal for a GWMS based on blanket licensing similar to the model employed by the Commission for Citizens' Band radios represents a creative solution that addresses this problem and should be adopted in addition to the bands which should be set aside in each market.

However, PISC's attempt to lay blame at the feet of wireless microphone manufacturers for the proliferation of unlicensed wireless devices and its call for the imposition of sanctions on the wireless microphone industry as a group is both inaccurate and irresponsible. PISC itself acknowledges that the Commission has been aware for years of the growing popularity of wireless microphones and the increasing use of such microphones on an unlicensed basis.¹⁴ Wireless microphones, ear monitors, hearing assist devices and similar communications systems have become pervasive in our society. On a daily basis, wireless microphones support and make possible a broad range of high quality services to the public. Broadcasters, television and movie producers, theatres, concert halls, educational institutions, places of worship, businesses, and entertainment companies make extensive use of wireless microphones. Wireless microphone manufacturers, including A-T, have been very forthright about this in comments filed with the FCC and, over the years, in recognition of the immense public benefit that such applications provide and the lack of interference complaints received, the Commission has not vigorously enforced its licensing requirement. This is not the fault of equipment manufacturers.

¹⁴ PISC Petition at p.16.

PISC's call for enforcement action against certain wireless microphone manufacturers represents nothing more than a cynical attempt to gain leverage in the *TV White Spaces* proceeding by deflecting scrutiny away from the failure to date of unlicensed white space devices to meet the performance criteria established for FCC sponsored field testing required for their deployment. Wireless microphone manufacturers, such as A-T, are legitimately concerned over the impact that the introduction of portable UD's would have on existing wireless services in the television bands and have been vocal proponents of careful and measured UD deployment. To this end, microphone manufacturers have fully supported FCC sponsored field tests to determine whether UD prototypes are able to detect and avoid interfering with existing users. Apparently frustrated by the fact the smart radio technology relied upon by PISC members to justify unlicensed white space deployment is not yet sufficiently reliable, PISC and its various components (many of whom stand to directly benefit financially from such deployment) are seeking to create leverage on this issue by concocting a claim that there are millions of illegal wireless microphones operating in the 700 MHz Band and that wireless microphone manufacturers are to blame. Close examination reveals that PISC's claims are utterly lacking in substance.¹⁵

The gist of the PISC Petition is that wireless microphone manufacturers should be subject to an enforcement proceeding for willfully violating the FCC's rules by marketing and selling

¹⁵ It is equally frustrating to wireless microphone manufacturers that the "detect and avoid" schemes are not yet working reliably. A-T does not expect that this technology will be implementable for several more years. When it is, A-T welcomes its use. In the interim, all portable UD's should be required to operate at the same output power levels and conditions as are applicable to licenses LPAS operating under Part 74 rules. This will help prevent interference, not just with wireless microphones but to TV and other unlicensed wireless devices.

wireless microphones to ineligible users. PISC asks the Commission to require wireless microphone manufacturers to pay the cost of relocating unlicensed users out of the 700 MHz Band. PISC's claims are legally and factually meritless. While PISC makes repeated claims to the effect that equipment manufacturers have violated the FCC's rules, the major flaw with its Petition lies in the fact that it struggles to cite *any* specific rules applicable to wireless microphone manufacturers that have been violated and that would warrant the extraordinary relief requested.¹⁶ Instead, the Petition weaves various innuendos, half truths and unsubstantiated facts into an amorphous legal theory sounding in misrepresentation, detrimental reliance, unjust enrichment and products liability.

Initially, while it is true that eligibility for BAS licenses is restricted to broadcasters, cable companies, motion picture producers and similar entities, these are not the only users that can legally use wireless microphones, despite PISC's repeated suggestions to the contrary. In contrast to Part 74 of the rules, Part 90 establishes extremely broad eligibility for wireless microphone use that covers all commercial enterprises, non-profit organizations, educational institutions and houses of worship. It is simply disingenuous for PISC to claim that wireless microphone manufacturers intentionally sought to violate FCC rules by selling wireless

¹⁶ While the PISC Petition does suggest a violation of sections 2.803 and 2.927 of the FCC's rules, these rules are only tangentially, if at all, related to PISC's claim. Section 2.803 relates to restrictions on marketing of equipment that has not yet been authorized for sale by the Commission, which is not the case for the wireless microphones that are the subject of the Petition. Section 2.927 prohibits marketing materials from making reference to an equipment authorization in any misleading manner. Without getting into whether the PISC selected brochure samples comply with the rule, the obvious remedy for a violation of section 2.927 would be to make the offending manufacturer eliminate any misleading reference in its brochure, not impose a relocation cost obligation upon an entire industry sector.

microphones to organizations outside of the limited class of users authorized under Part 74 of the rules¹⁷ when almost anyone can qualify for a wireless microphone license under Part 90.¹⁸

While A-T cannot speak for other manufacturers, it can state on its own behalf that it does not sell its products directly to consumers. Furthermore, only products that operate on the travelling frequencies under Part 90 are sold to limited retail outlets such as Radio Shack or Circuit City. A-T does not (nor could it afford to) trace the sale of every wireless product to determine whether the ultimate purchaser meets FCC eligibility requirements for a license, nor do the FCC's rules impose any such obligation upon it to do so. Likewise, the FCC's rules do not impose any obligation on the equipment manufacturer to obtain FCC licenses for their users. Users are, and always have been, responsible for obtaining their own licenses. While that fact may not conveniently fit PISC's political and regulatory agenda, it is nonetheless true.¹⁹ Any changes to this regulatory policy would have to be made on a prospective basis following administrative due process.

¹⁷ *NPRM* at ¶8.

¹⁸ Despite PISC's suggestion to the contrary, Karaoke applications as part of a church function or in a commercial establishment such as a bar, would clearly fall within Part 90 eligibility standards. See PISC Petition at pp. 10-11.

¹⁹ PISC's admits that its members have used unlicensed wireless microphones for their own activities and attempts to paint itself as a victim of unscrupulous wireless microphone manufacturers. Petition at pp. 36-37. PISC's members have participated in numerous FCC proceedings covering a broad range of topics over the years and employ veritable legions of lawyers. PISC's attempt to claim ignorance of its own regulatory obligations is simply not credible.

Similarly, there is no substance whatsoever to PISC's argument that equipment manufacturers deceived product purchasers by including product labels disclosing information regarding radio interference but not labels disclosing the need for an FCC license.²⁰ Product manufacturers label their products to provide information on radio interference and FCC certification/approval precisely because FCC rules require them to do so. The fact that products do not contain labels informing customers of the FCC license requirement stems not from any intent to deceive customers into purchasing equipment they can't legally use, as PISC argues, but merely reflects the fact that the FCC has never required manufacturers to label their products in such a manner. Failure to voluntarily undertake an obligation that the FCC does not impose is not a violation of FCC rules.

Nowhere is PISC's careless disregard of facts, faulty reasoning and penchant for hyperbole more evident than in its unsubstantiated claims that there are "hundreds of thousands of [illegal] users across the country."²¹ Indeed, PISC actually claims that "in 2006, there were ***more than 400 times*** as many illegal wireless microphone systems as legal wireless microphone systems" and then goes on to state that the current number of unauthorized users "may well exceed one million."²² PISC's claims are not supported by any empirical evidence.

PISC introduces no quantitative or qualitative data supporting these numbers which it bandies about as fact. Instead, PISC relies entirely on numbers appearing in a 2006 article in *Mix*

²⁰ PISC Petition at pp. 11-15.

²¹ PISC Petition at p. 29.

²² PISC Petition at p. vi. (Emphasis original).

magazine. However, even here PISC exaggerates and distorts its own source material. The article relied on by PISC merely estimates that in 2006 there were approximately 400,000 microphones in use in the United States. The article does not itself cite to any data or source for these numbers. Accordingly, there is no way to vouch for their accuracy. The article also does not state how many of the 400,000 wireless microphones which it claims were in use were licensed versus unlicensed.²³ Of the unlicensed microphones that may exist, there is no indication as to how many would be eligible for licensing. In other words, PISC's claims clearly are not supported by its own cited source.

PISC also indiscriminately uses the terms microphones, microphone systems and unlicensed users as if they are interchangeable on a one-to-one basis. The number stated in the article to which PISC cites speaks only to the total number of microphones in use. In its Petition, PISC uses this number to represent as the number of *illegal* microphone *systems* in operation (even though the article clearly states that at least 10 to 15 percent of microphone systems are properly licensed) and to represent the number of unlicensed users who have been "misled" by equipment manufacturers. But that is not what the article says. A single wireless microphone system generally consists of as many as 8-10 microphones, although for large event productions the number of microphones could be in excess of 40. Clearly even if all 400,000 of the microphones whose existence is postulated by the article were unlicensed (a point which A-T

²³ The article goes on to estimate that approximately 10 to 15 percent of microphone *systems* are *properly* licensed, a fact conveniently ignored by PISC when it suggests that all 400,000 microphones mentioned in the article are illegally operating, although that very estimate is quoted elsewhere in PISC's Petition. Petition at p. 16.

does not concede and which is contradicted elsewhere in the article) the number of unlicensed wireless microphone systems would be some fraction of that number. Furthermore, as the FCC's licensing database shows, BAS operations are licensed on a geographic basis which, in some cases, is nationwide.²⁴ A single user may operate any number of wireless microphone systems within its licensed geographic area, meaning there are far fewer users than systems. Yet by PISC's strange arithmetic, 400,000 microphones (both legal and unlicensed) somehow add up to millions of unauthorized users. Again, this is not what the article says. The Commission cannot, and should not, impose a potentially costly and detrimental industry wide relocation obligation upon wireless manufacturers as a group based on PISC's unsupported assertions.

In the *NPRM*, the Commission has indicated that its Enforcement Bureau has already initiated an investigation into the marketing practices of various wireless microphone manufacturers.²⁵ To the extent that it finds any individual manufacturer to have violated its rules, it remains free to take appropriate enforcement action against that manufacturer. However, the PISC Petition goes much further and asks the Commission to indiscriminately require all wireless microphone manufacturers to bear the cost of relocating all unlicensed 700 MHz users regardless of fault or wrongdoing. This is simply untenable and PISC's invitation must be declined.

As indicated previously, wireless microphone eligibility is quite broad under part 90 of the Commission's rules and the mere fact that wireless microphone manufacturers produce

²⁴ *NPRM* at ¶7.

²⁵ *NPRM* at ¶22.

informational brochures for churches, karaoke bars, convention centers or that these types of entities make use of wireless microphones is not evidence of any wrongdoing on the part of microphone manufacturers despite PISC's attempts to characterize these activities as such.²⁶ The popularity of wireless microphones is more a reflection of the success of the Commission's own wireless policies than it is the product of any marketing efforts undertaken by individual microphone manufacturers. Individuals and businesses alike are throwing off the tethers of a wired world throughout the full spectrum of their activities. Wireless phones are increasingly replacing landline phones as the primary line for an increasing number of homes and businesses. More and more broadband traffic is originating over both licensed and unlicensed wireless broadband networks.²⁷ The growing popularity of products such as wireless microphones merely reflects this larger paradigm shift within our society and the entire world.

Wireless microphone manufacturers are at the forefront of developing new and innovative products, such as A-T's UWB microphone, that advance the state-of-the-art in wireless communications and provide innovative solutions that will ultimately allow wireless users, both licensed and unlicensed, to share the same limited spectrum without causing harmful

²⁶ Even though A-T does not sell direct to consumers and limits retail outlet sales to Part 90 eligible equipment, it is nevertheless possible that non-eligible parties may have acquired A-T equipment operating in the 700 MHz Band without A-T's knowledge in the gray market, on eBay, through second hand sales or from unscrupulous dealers. A-T cannot be held responsible for the unlicensed operations of such users any more than companies like Microsoft or Google can be held responsible when their products or services are used to download copyrighted materials without a license.

²⁷ Indeed this is the principal argument advanced by PISC members and other proponents of opening up the broadcast spectrum for unlicensed wireless use as proposed in the *TV White Spaces* proceeding.

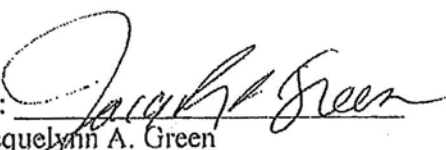
interference to other users. Wireless manufacturers are part of the solution, not part of the problem, a fact which PISC's myopic proposal ignores. Adoption of the PISC proposal would have serious negative financial consequences for small companies such as A-T and would adversely impact their ability to innovate and develop new products.

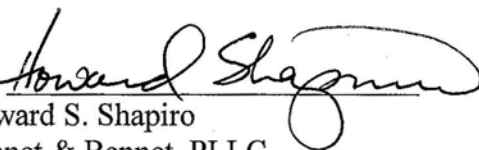
IV. CONCLUSION

Based on the foregoing, A-T respectfully requests that the Commission provide for an orderly and cost effective transition of LPAS out of the 700 MHz Band by imposing the same DTV transition schedule that it adopts for LPTV and TV translator stations; adopt PISC's suggestion to create a GMWS and set aside adequate spectrum this purpose; and reject PISC's ill-conceived attempt to saddle wireless microphone manufacturers with any relocation costs attributable to the Commission's reclamation of the 700 MHz Band.

Respectfully submitted,

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